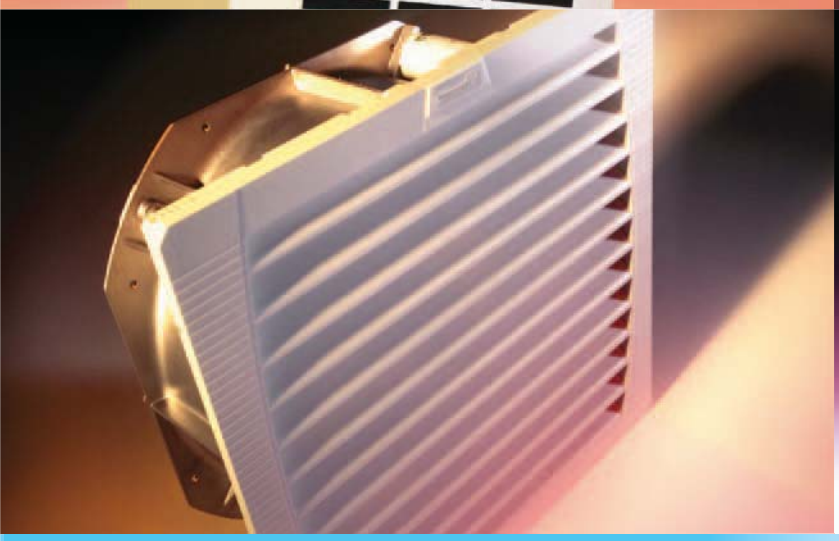
Thermal Management Solutions

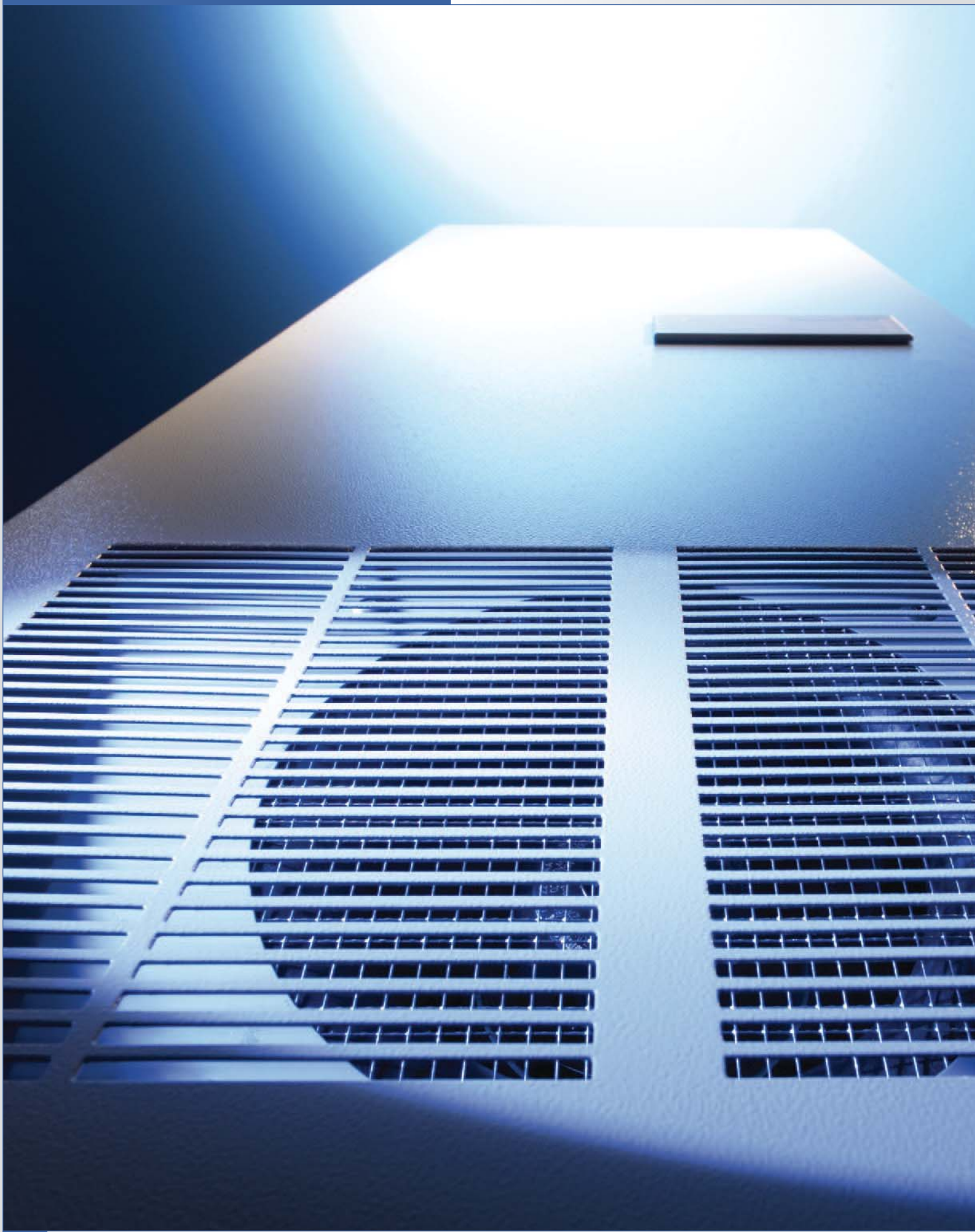
Cooling Units · Air/Water Heat Exchangers · Chillers
Filterfans® · Heaters, Thermostats and Hygrostats

Main Catalog · Edition 11



SHARING COMPETENCE

Pfannenberg
ELECTRO-TECHNOLOGY FOR INDUSTRY



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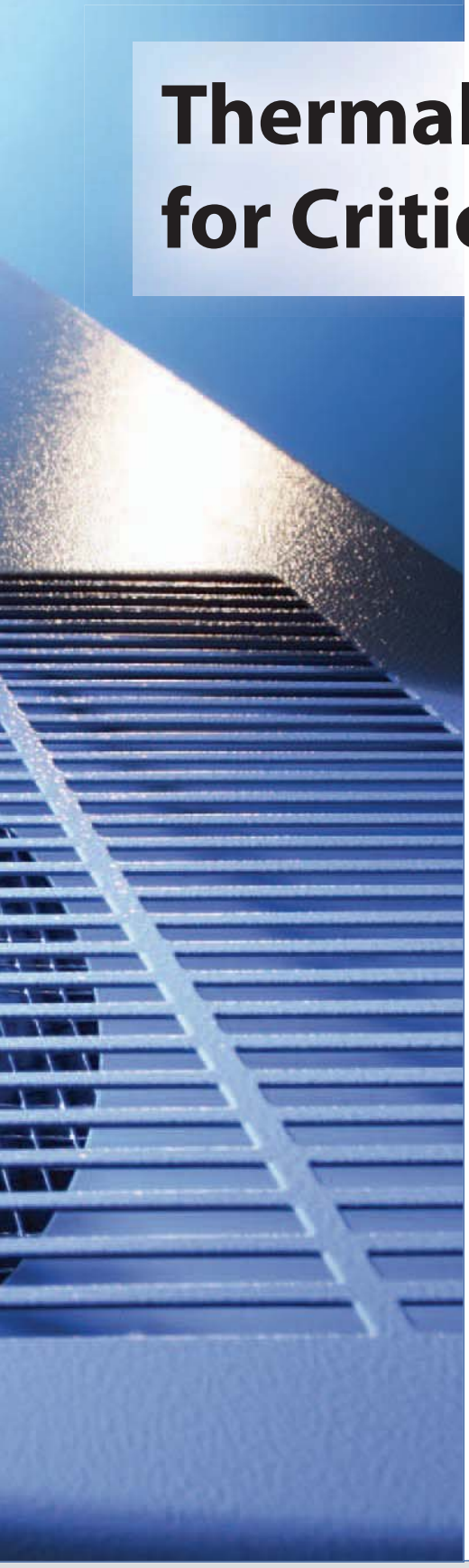
Thermal Protection for Critical Electronics



DTS 3000, DTT 6000 and DTI 9000 Series Cooling Units

Utilize closed loop cooling in tough industrial or outdoor applications with Pfannenberg's 'service-friendly' cooling units.

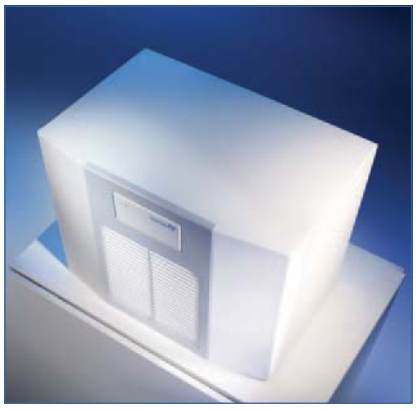
Our DTS 3000 Series is driven to meet the demands of our North American NEMA market. These units meet the needs on indoor NEMA Type 12 applications, NEMA 3R/4 outdoor applications and NEMA Type 4/4x stainless steel for washdown applications.

An absolute world innovation: the DTT Series. The 6000 Series top mounted cooling units offer unique security through the innovative, patented condensate management system and it is installable in the most limited of spaces.

The DTI 9000 Series allows for European-style recessed mounting on enclosure doors and/or side panels on modular systems. These "click & fit" units reduce installation times by half.

DTT Top Mounted Cooling Units

Featuring a unique, patented condensate management system which prevents all condensate from penetrating into the electrical enclosure. The very small installation size also means that you can install your electrical enclosures in a row to save space.



Further advantages of the DTT Series:

- **Excellent security level** due to patented condensate management system
- **Perfect service-friendliness** and long maintenance intervals
- **Product variety:** 3 installation sizes with 6 performance levels available
- **Modern design** and large selection of surface finishes and colors
- **Environmental protection** thanks to energy efficiency and recyclability
- **Easy mounting:** quick release mounting frame

The proven industry standard: DTI/DTS Cooling Units for partially-recessed and side mounted installation

Innovative Technology

- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated ambient air
- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Standard controller allows for quick set up and error reporting to customer

Ease of Service and Mounting

- Integrated Cooling System©: DTI 9x41, mounted by 1 man in 2 minutes
- Easy access to fans and electronics for quick changes in the field

High Variability

- Integrated condensate evaporation system
- Coated condensers and pipes standard for all outdoor and washdown NEMA units
- High pressure switches to protect compressors are standard on ALL Pfannenberg Cooling Units
- Integrated Cooling System©: one mounting cut-out for 5 different performances

Conforms to International Standards

- Global approval such as CE, UL, cUL, some GOST for Russia and CSA for Canada
- DTS Cooling Units up to protection class NEMA 4/4X

Type	Cooling Capacity Btu/h	Rated Voltage	Dimensions H x W x D Inches (mm)	Approvals				Page
				UL	cUL	GOST	CE	
DTS Series Indoor Side Mount NEMA Type 12 Cooling Units								
DTS 1200	900 - 1200	115 V / 230 V	13 (330) x 14.76 (375) x 7.48 (190)	●	●		●	15
DTS 3021	90-1300	115 V / 230 V	15.5 (393.7) x 7 (177.8) x 7.75 (196.8)	●	●		●	17
DTS 2000	1500 - 2000	115 V / 230 V	17.52 (445) x 12.4 (315) x 10.04 (255)	●	●		●	19
DTS 3041	2000 - 3000	115 V / 230 V	20.16 x 10.08 x 10.79 (512 x 256 x 274)	●	●		●	21
DTS 3141	3000 - 4000	115 V / 230 V / 400/460 V	29.45 x 15.55 x 11.57 (748 x 395 x 294)	●	●		●	23
DTS 3141 SL	3000 - 5000	115 V / 230 V / 400/460 V	36 (914) x 12 (305) x 12 (302)	●	●		●	25
DTS 3145	5000 - 6000	115 V / 230 V / 400/460 V	36 (914) x 12 (305) x 12 (302)	●	●		●	27
DTS 3241	7000 - 8500	115 V / 230 V / 460 V	47.60 x 15.55 x 12.83 (1209 x 395 x 326)	●	●		●	29
DTS 3245	9000 - 12000	115 V / 230 V / 400/460 V	53 (1347) x 16.2 (411) x 11.9 (301)	●	●		●	31
DTS 3341	12000 - 14000	230 V / 400 V / 460 V	59.13 x 15.87 x 18.42 (1502 x 403 x 363)	●	●		●	33
DTS 3541	16000 - 18000	230 V / 400 V / 460 V	59.13 x 19.02 x 21.02 (1502 x 483 x 428)	●	●		●	35
DTS 3641	20000 - 24000	230 V / 400 V / 460 V	65.63 x 19.02 x 25.53 (1667 x 483 x 518)	●	●		●	37

Type	Cooling Capacity Btu/h	Rated Voltage	Dimensions H x W x D Inches (mm)	Approvals				Page
				UL	cUL	GOST	CE	
DTT Series Top Mount NEMA 12 Cooling Units								
DTT 6101	1200 - 2000	115 V / 230 V	17.13 x 23.43 x 15.55 (435 x 595 x 395)	●	●		●	39
DTT 6201	2500 - 4000	115 V / 230 V / 400/460 V	17.13 x 23.43 x 15.55 (435 x 595 x 395)	●	●		●	39
DTT 6301	4000 - 5500	115 V / 230 V / 460 V	17.13 x 23.43 x 19.49 (435 x 595 x 495)	●	●		●	41
DTT 6401	5500 - 7000	115 V / 230 V / 460 V	17.13 x 23.43 x 19.49 (435 x 595 x 495)	●	●		●	41
DTT 6601	7000 - 10000	460 V	19.09 x 31.30 x 22.64 (485 x 795 x 575)	●	●		●	43
DTT 6801	12000 - 14000	460 V	19.09 x 31.30 x 22.64 (485 x 795 x 575)	●	●		●	43
DTS Series Outdoor Cooling Units - NEMA Type 3R/4								
DTS 3031	900-1300	115 V / 230 V	15.5 (393.7) x 7 (177.8) x 7.75 (196.8)	●	●		●	47
DTS 3061	2000 - 3000	115 V / 230 V	20.16 x 10.08 x 10.79 (512 x 256 x 274)	●	●		●	49
DTS 3161	3000 - 4000	115 V / 230 V / 400/460 V	29.45 x 15.55 x 11.57 (748 x 395 x 294)	●	●		●	51
DTS 3161 SL	3000 - 5000	115 V / 230 V / 400/460 V	36 (914) x 12 (305) x 12 (302)	●	●		●	53
DTS 3165	5000 - 7000	115 V / 230 V / 400/460 V	36 (914) x 12 (305) x 12 (302)	●	●		●	55
DTS 3261	7000 - 8500	115 V / 230 V / 460 V	47.60 x 15.55 x 12.83 (1209 x 395 x 326)	●	●		●	57
DTS 3265	9000 - 12000	115 V / 230 V / 400/ 460 V	53 (1347) x 16.2 (411) x 11.9 (301)	●	●		●	59
DTS 3361	12000 - 14000	230 V / 400 V / 460 V	59.13 x 15.87 x 18.42 (1502 x 403 x 468)	●	●		●	61
DTS 3561	16000 - 18000	230 V / 400 V / 460 V	59.13 x 19.02 x 21.02 (1502 x 483 x 534)	●	●		●	63
DTS 3661	20000 - 24000	230 V / 400 V / 460 V	65.63 x 19.02 x 25.53 (1667 x 483 x 623)	●	●		●	65
DTS Series Washdown Cooling Units - NEMA Type 4/4X								
DTS 3031 SS	900-1300	115 V / 230 V	15.5 (393.7) x 7 (177.8) x 7.75 (196.8)	●	●		●	69
DTS 3081	2000 - 3000	115 V / 230 V	20.16 x 10.08 x 10.79 (512 x 256 x 274)	●	●		●	71
DTS 3181	3000 - 4000	115 V / 230 V / 400/460 V	29.45 x 15.55 x 11.57 (748 x 395 x 294)	●	●		●	73
DTS 3181 SL	3000 - 5000	115 V / 230 V / 400/460 V	36 (914) x 12 (305) x 12 (302)	●	●		●	75
DTS 3185	5000 - 7000	115 V / 230 V / 400/ 460 V	36 (914) x 12 (305) x 12 (302)	●	●		●	77
DTS 3281	7000 - 8500	115 V / 230 V / 460 V	47.60 x 15.55 x 12.83 (1209 x 395 x 326)	●	●		●	79
DTS 3285	9000 - 12000	115 V / 230 V / 400/ 460 V	53 (1347) x 16.2 (411) x 11.9 (301)	●	●		●	81
DTS 3381	12000 - 14000	230 V / 400 V / 460 V	59.13 x 15.87 x 18.42 (1502 x 403 x 468)	●	●		●	83
DTS 3581	16000 - 18000	230 V / 400 V / 460 V	59.13 x 19.02 x 21.02 (1502 x 483 x 534)	●	●		●	85
DTS 3681	20000 - 24000	230 V / 400 V / 460 V	65.63 x 19.02 x 25.53 (1667 x 483 x 623)	●	●		●	87
DTI Series Integrated/Recessed (European)								
DTS 9011H	300 W	115 V / 230 V	11.81 x 19.49 x 5.51 (300 x 495 x 140)	●	●	○	●	91
DTI 9021	320 W	115 V / 230 V	12.95 x 15.16 x 9.92 (329 x 385 x 252)	●	●	●	●	93
DTI 9031	510 W	115 V / 230 V / 460 V	22.13 x 12.21 x 8.35/8.35/13.90 (562 x 310 x 212/212/353)	●	●	●	●	95
DTI 9241	1000 W	230 V / 400 / 460 V	60.59 x 19.09 x 7.09 (1536 x 485 x 180)	●	●	●	●	97
DTI 9341	1500 W	230 V / 400 / 460 V	60.59 x 19.09 x 7.09 (1536 x 485 x 180)	●	●	●	●	97
DTS 9441	2000 W	230 V / 400 / 460 V	60.59 x 19.09 x 9.45 (1536 x 485 x 240)	●	●	●	●	99
DTS 9541	2500 W	230 V / 400 / 460 V	60.59 x 19.09 x 9.45 (1536 x 485 x 240)	●	●	●	●	99
DTS 9841	4000 W	400 / 460 V	60.59 x 19.09 x 14.17 (1539 x 485 x 360)	●	●	●	●	101
Thermal-Electric Peltier Indoor Cooling Units								
PTM 100	100 W	24 VDC	14.45 (367) x 7.13 (181) x 8.9 (226)				●	103
PTM 150	150 W	24 VDC	19.49 (495) x 7.13 (181) x 8.9 (226)				●	103
DTS Series Water Cooled Cooling Units								
DTS 31X5 WC	6000-8000	VDC		●	●		●	107
DTS 32X5 WC	10000 - 12000	VDC		●	●		●	107
DTS Series High Temperature Cooling Units								
DTS 3265 HT	2800 W	**230 V ONLY**	53 (1347) x 16.2 (411) x 11.9 (301)	●	●		●	109
DTS 3165 HT	1600 W	**230 V ONLY**	36 (914) x 12 (305) x 12 (302)	●	●		●	109
DTS 3061 HT	600W	**230 V ONLY**	20.16 x 10.08 x 10.79 (512 x 256 x 274)	●	●		●	109

● available
○ pending

Washdown 4/4X Cooling Units

Features/Benefits:

Pfannenberg strives to provide a relatively maintenance free design for our customers. All our designs have additional options including:

Stainless Steel Covers - 304 SS, #3 polish to match enclosures and protect against washdown environments (316L optional).

Enclosure Heater Option - for special applications where heating is required to control condensate or keep electronics above a desired temperature range in cold climates.

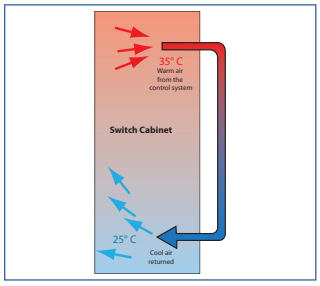
Voltage Options - Many of our cooling units have been designed for both 50/60 Hz applications as well as 400 or 460 V operations with a simple jumper change in the e-box.

Wide Condenser Fin Spacing / Coated Condenser & Pipes

This filter-free design also reduces the amount of maintenance required by the customer. A quick cleaning of the condenser is required less frequently verses the competition's models, while capacity is not compromised by easy clogging of the condenser core.

Rugged, Long-lasting Backward Curved Impeller Fans

Utilizing this type of fan, our cooling units can go twice as long before needing service verses a typical blower style fan that has smaller, low-cost and high maintenance bearings.



Proper Long Internal Air Flow Paths

The backward curve fan also has a natural right angle air path that allows our cooling units to capture hot air from the top of the electrical cabinet and deposit cool, dry air to the bottom of the cabinet and underneath critical components on the panel.

Hermetically Sealed Refrigeration Circuit

Utilizing a maintenance free design, Pfannenberg implements a hermetically sealed design that **eliminates gasketed valves** and the leak source for many other A/C unit designs. Therefore, our cooling units do not need annual maintenance to determine if the unit is properly charged with R134a refrigerant.

Standard Control Board

Controlling temperature and alarm setting via dip-switches, preventing airflow short cycling, high pressure switch alarm, on/off control of compressor with built-in delay timer and a LED lamp with four different flashing sequences. The control board is located in inner air circuit for protection from heat and dirt.

Application Examples

The following are just a few examples of the industries and applications in which Pfannenberg's Washdown Cooling Units can be utilized. Call us today to find out how you can cut costs by keeping your processes, whatever they may be, up and running with reliability you can count on.

Beverage
Filling / Packaging

Wastewater / Irrigation

Oil & Gas / Food Processing

DTS 3031 SS (NEMA Outdoor Type 4/4X)

Cooling Unit 900 - 1200 Btu/h

- Compact design, ideal for small control cabinets or for cooling of hot spots in larger control cabinets
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Logic connector for door contact input
- Powder coated steel cover for rugged environments, easily painted to match enclosure or machine
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3031 SS (NEMA Type 4/4X)		Unit
Part number		13383141158	13383144158	
Rated voltage ± 10 %		230	115	VAC
Frequency		50/60	60	Hz
Cooling performance according to EN 14511		1200		Btu/h
Power consumption		315	325	W
Nominal (Run) Current @ 35/35 °C		2	3	A
Starting current		5	10	
Unimpeded airflow (free flow)	internal	38 (65)		CFM (m^3/h)
	external	30 (50)		
Fuse (Recommended) Class CC		3	3	A
Type of connection		cord with molded plug		
Noise level (according to EN ISO 3741)		< 64		dB(A)
Weight (without packaging)		30 (13.6)		lb (kg)
Ambient temperature range		+ 59 … + 131 / + 15 … + 55		°F / °C
Control range (adjustable)		+ 77 … + 113 / + 25 … + 45 factory setting + 95 / + 35		
Refrigerant	type	R134a		
	quantity	150		g
Duty cycle		100 %		
Condensate management		Integrated Condensate Management System with Condensate Drain		
Protection system according to NEMA type		NEMA 4/4X against enclosure when properly installed		
		NEMA 1 towards the surroundings when properly installed		
Design	housing	galvanized sheet steel		
	cover	galvanized/electrostatically powder coated (200 °C)		

Options	Piece	Part number	Information on page
900W Enclosure Heater	1	Consult Factory	-
Accessories			
Metal Mesh Filter	1	805059007	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

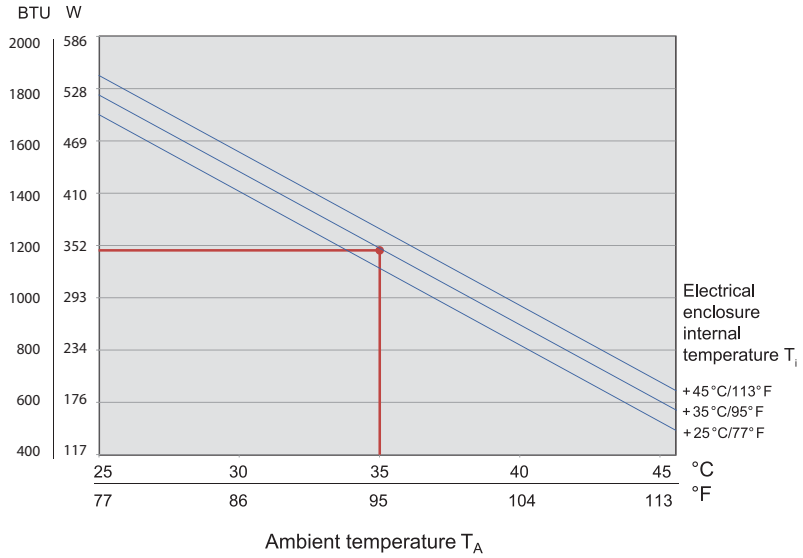
Cooling Capacity Performance Curve

DTS 3031 SS

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 1187 Btu/h cooling capacity (Y-axis)



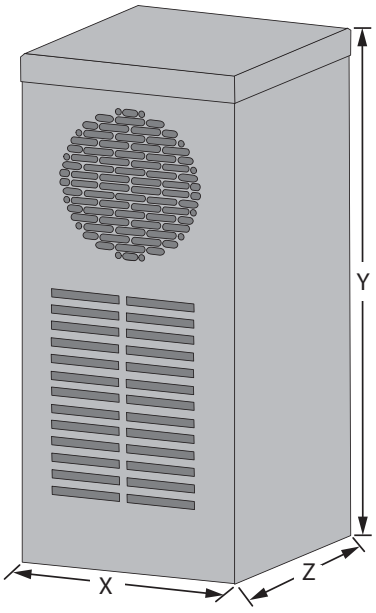
Dimensions

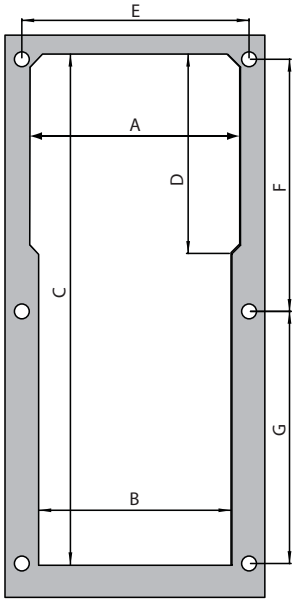
DTS 3031 SS

Dimension	inches	mm
X	7	177.8
Y	15.5	393.7
Z	7.75	196.8
A	5.31	135
B	4.88	124
C	12.91	328
D	5.04	128
E	5.75	146
F	6.38	162
G	6.38	162

Mounting holes Ø 10 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3081 (NEMA 4/4X)

Cooling Unit 2000 - 3000 Btu/h

- Compact design, ideal for small control cabinets and larger control cabinets for the cooling of hot spots
- Particularly suitable for the food industry and outdoor applications
- High protection system IP 56, maintenance-free
- Optionally available in stainless steel
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Optional high ambient temperature to 140° F (60° C) (see page 109)
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3081 (NEMA Type 4/4X)		Unit
Part number 304 Stainless Steel		13382341300	13382344300	
Rated voltage ± 10 %		230	115	VAC
Frequency		50/60	60*	Hz
Cooling performance according to EN 14511		2000 - 3000		Btu/h
Power consumption		663	690	W
Nominal (Run) Current @ 35A/35A °C		3.4	5.0	A
Starting current		14.4	28	A
Unimpeded airflow (free flow)	internal	191 (325)		CFM (m³/h)
	external	88 (148)		CFM (m³/h)
Fuse (Recommended) Class CC		5	10	A
Type of connection		cord with molded plug		
Noise level (according to EN ISO 3741)		< 64		dB(A)
Weight (without packaging)		51 (23)		lb (kg)
Ambient temperature range		+ 32 … + 131 / + 0 … + 55		°F / °C
Control range (adjustable)		+ 77 … + 113 / + 25 … + 45 factory setting + 95 / + 35		°F / °C
Refrigerant	type	R134a		
	quantity	400	228	g
Duty cycle		100 %		
Condensate management		Integrated Condensate Management System with Condensate Drain		
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed		
		NEMA Type 1 towards the surroundings when properly installed		
Design	housing	stainless steel 304		
	cover	stainless steel 304		

*50 Hz unit available. Consult factory.

Option(s)	Piece	Part number	Information on page
900 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	815065000	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

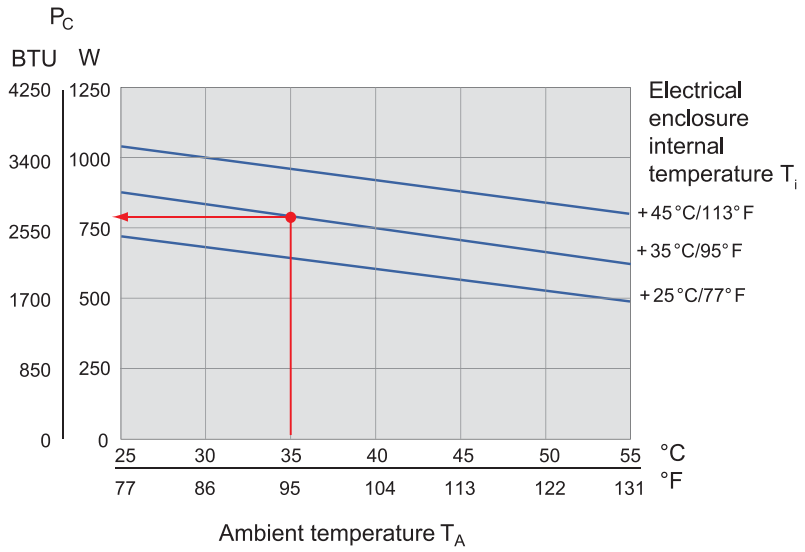
Cooling Capacity Performance Curve

DTS 3081

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 2660 Btu/h cooling capacity (Y-axis)



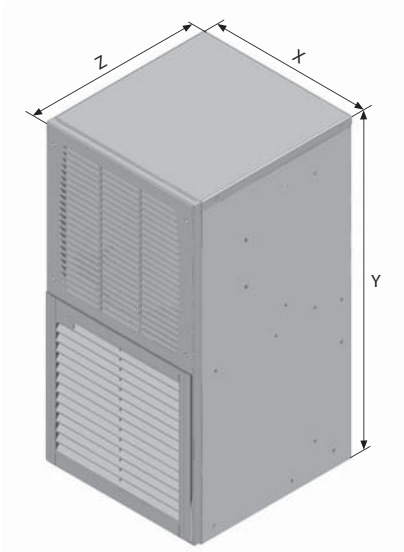
Dimensions

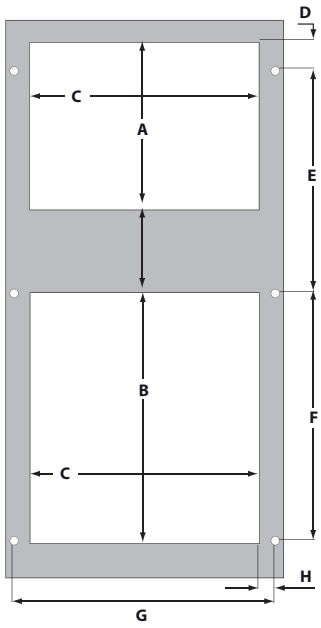
DTS 3081

Dimension	inches (mm)
X	10.08 (256)
Y	20.16 (512)
Z	10.79 (274)
A	6 (152.4)
B	9.07 (230.3)
C	8.25 (209.6)
D	1.03 (26.1)
E	8 (203.2)
F	8.88 (225.6)
G	9.37 (238.1)
H	.056 (14.3)
I	3 (76.1)

Mounting holes Ø 8 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3181 (NEMA 4/4X)

Cooling Unit 3000 - 4000 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3181 (NEMA Type 4/4X)			Unit
Part number	304 Stainless Steel	13385436158	13385441158	13385444158	
Rated voltage ± 10 %		460 1Ø	230	115	VAC
Frequency		50 / 60		60*	Hz
Cooling performance according to EN 14511		3000 - 4000			Btu/h
Power consumption		760	712	712	W
Nominal (Run) Current @35A/35A °C		2	4.2	7.2	A
Starting current		8	17	28	
Unimpeded airflow (free flow)	internal	350 (206)			CFM (m^3/h)
	external	350 (206)			
Fuse (Recommended) Class CC**		3	6	10	A
Type of connection		permanent spring terminal			
Noise level (according to EN ISO 3741)		< 70			dB(A)
Weight (without packaging)		95 (43)			lb (kg)
Ambient temperature range		+ 32 … + 131 / + 0 … + 55			°F / °C
Control range (adjustable)		+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35			
Refrigerant	type	R134a			
	quantity	400			g
Duty cycle		100 %			
Condensate management		active condensate evaporation system with safety overflow			
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed			
		NEMA Type 1 towards the surroundings when properly installed			
Design	housing	galvanized sheet steel			
	cover	stainless steel 304			

*50 Hz unit available. Consult factory.
** SCCR rating - See user manual for instructions to achieve 50 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
900 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500000	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

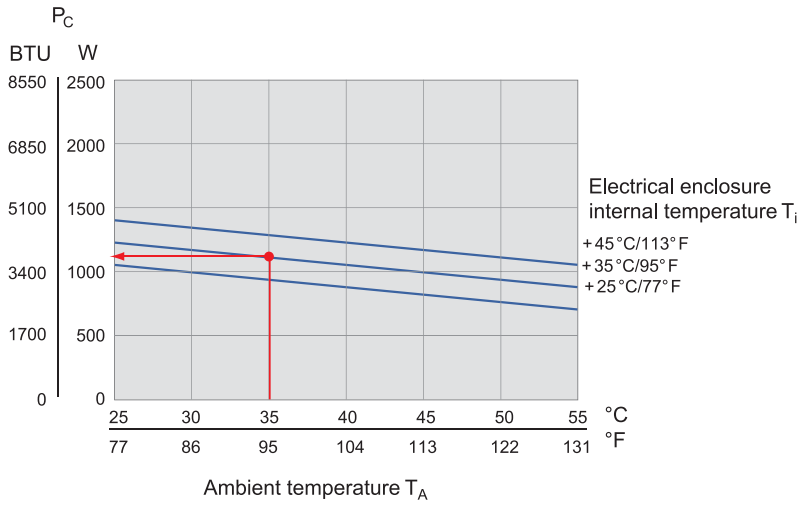
Cooling Capacity Performance Curve

DTS 3181

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 3755 Btu/h cooling capacity (Y-axis)



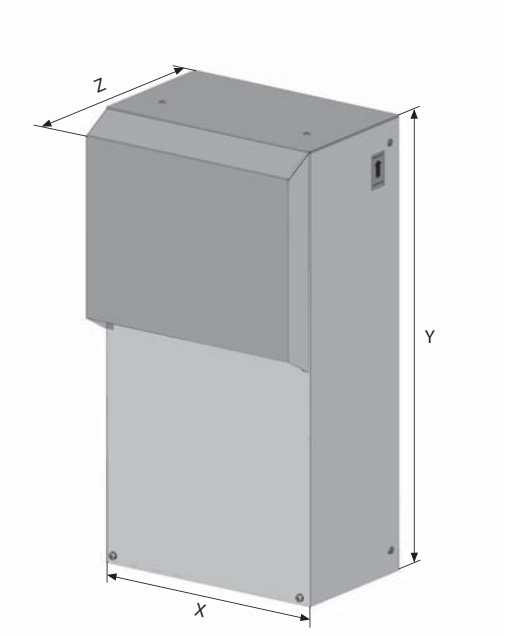
Dimensions

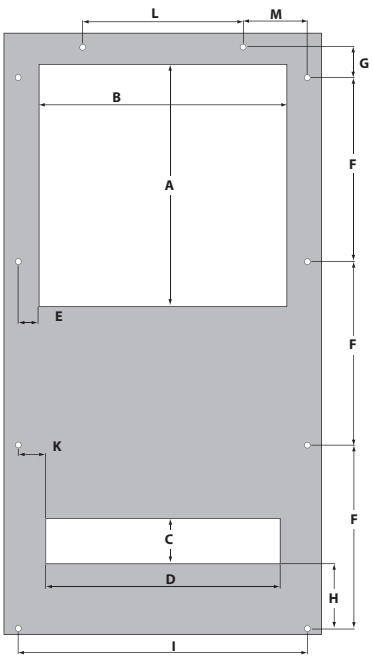
DTS 3181

Dimension	inches (mm)
X	15.55 (395)
Y	29.33 (748)
Z	11.57 (294)
A	11.81 (300)
B	12.2 (310)
C	2.2 (56)
D	11.5 (292)
E	.98 (25)
F	9 (228.6)
G	1.5 (38.1)
H	3.19 (81)
I	14.17 (360)
J	10.12 (257)
K	1.34 (34)
L	7.87 (200)
M	3.15 (80)

Mounting holes Ø 8 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3181 SL (NEMA Type 4/4X)

Cooling Unit 3000 - 5000 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- 230V withstands high ambient temperature to 140° F (60° C)
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3181 SL (NEMA Type 4/4X)		Unit
Part number 304 Stainless Steel		13383436158	13383441355	
Rated voltage ± 10 %		400 / 460 1Ø	230	VAC
Frequency		50 / 60	50/60	Hz
Cooling performance according to EN 14511		3000 - 5000		Btu/h
Power consumption		751	890	W
Nominal (Run) Current @ 35A/35A °C		1.9	4	A
Starting current		14.8	14.8	
Unimpeded airflow (free flow)	internal	341 (580)	341 (580)	CFM (m^3/h)
	external	706 (1200)	706 (1200)	
Fuse (Recommended) Class CC**		15	15	A
Type of connection		permanent spring terminal		
Noise level (according to EN ISO 3741)		< 70		dB(A)
Weight (without packaging)		108 (49)		lb (kg)
Ambient temperature range		+ 59 … + 131 / + 15 … + 55		°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35		
Refrigerant	type	R134a		
	quantity	900		g
Duty cycle		100 %		
Condensate management		active condensate evaporation system with safety overflow		
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed		
		NEMA Type 1 towards the surroundings when properly installed		
Design	housing	galvanized sheet steel		
	cover	stainless steel 304		

** SCCR rating - See user manual for instructions to achieve 200 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
900 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500006	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

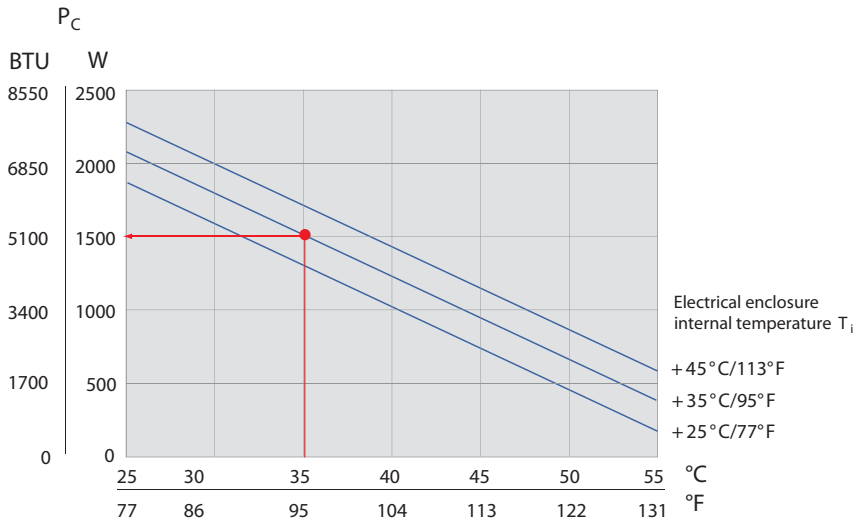
Cooling Capacity Performance Curve

DTS 3181 SL

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 5107 Btu/h cooling capacity (Y-axis)



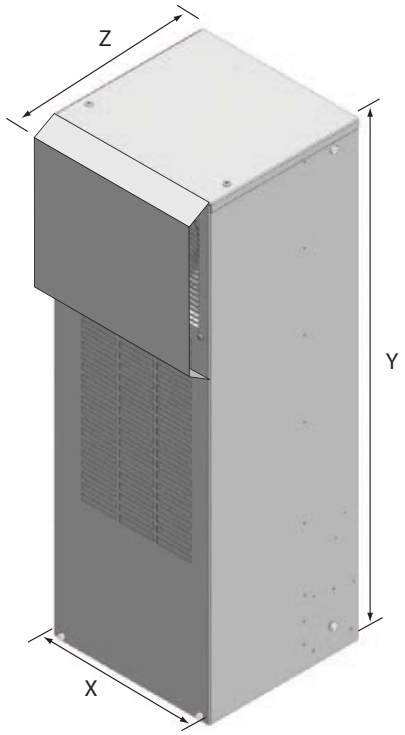
Dimensions

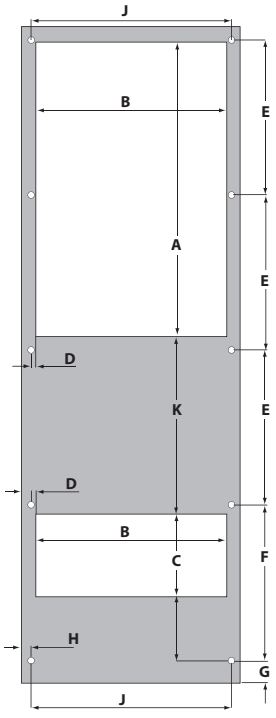
DTS 3181 SL

Dimension	inches (mm)
X	12.24 (311)
Y	36 (914)
Z	14.4 (367)
A	17 (430)
B	10.4 (264)
C	4.7 (118)
D	.30 (8)
E	8.5 (216)
F	8.5 (216)
G	1.3 (32)
H	.5 (13)
I	3.2 (80)
J	11 (279)
K	9 (228)

Mounting holes Ø 10 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3185 (NEMA 4/4X)

Cooling Unit 5000 - 7000 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- Optional high ambient temperature to 140° F (60° C) (see page 109)
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3185 (NEMA Type 4/4X)			Unit
Part number	304 Stainless Steel	13383636158	13383639158	13383644158	
Rated voltage ± 10 %		400 / 460 3Ø	230	115	VAC
Frequency		50 / 60	50/60	60*	Hz
Cooling performance according to EN 14511		5000 - 7000			Btu/h
Power consumption		1283	1020	1000	W
Nominal (Run) Current @ 35A/35A °C		2.0	4.5	8.5	A
Starting current		16	26	48	
Unimpeded airflow (free flow)	internal	341 (580)	341 (580)	365 (620)	CFM (m^3/h)
	external	706 (1200)	706 (1200)	765 (1300)	
Fuse (Recommended) Class CC**		10	15	20	A
Type of connection		permanent spring terminal			
Noise level (according to EN ISO 3741)		< 70			dB(A)
Weight (without packaging)		108 (49)			lb (kg)
Ambient temperature range		+ 59 … + 131 / + 15 … + 55			°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35			
Refrigerant	type	R134a			
	quantity	900			g
Duty cycle		100 %			
Condensate management		active condensate evaporation system with safety overflow			
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed			
		NEMA Type 1 towards the surroundings when properly installed			
Design	housing	galvanized sheet steel			
	cover	stainless steel 304			

** SCCR rating - See user manual for instructions to achieve 200 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
900 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500006	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

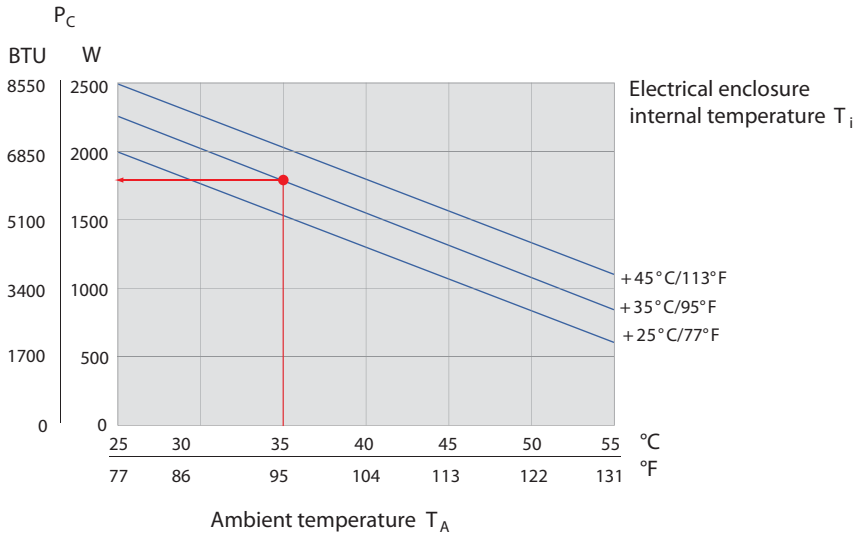
Cooling Capacity Performance Curve

DTS 3185

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 6140 Btu/h cooling capacity (Y-axis)



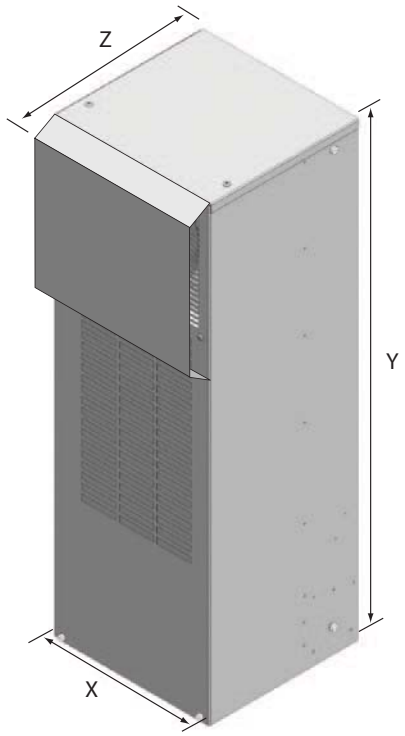
Dimensions

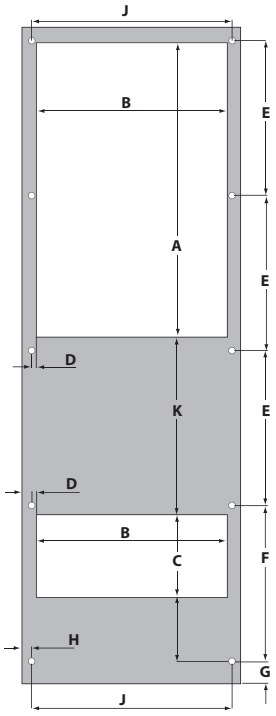
DTS 3185

Dimension	inches (mm)
X	12.24 (311)
Y	36 (914)
Z	14.4 (367)
A	17 (430)
B	10.4 (264)
C	4.7 (118)
D	.30 (8)
E	8.5 (216)
F	8.5 (216)
G	1.3 (32)
H	.5 (13)
I	3.2 (80)
J	11 (279)
K	9 (228)

Mounting holes Ø 10 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3281 (NEMA 4/4X)

Cooling Unit 7000 - 8500 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3281 (NEMA Type 4/4X)			Unit
Part number	304 Stainless Steel	13385736158	13385741158	13385744158	
Rated voltage ± 10 %		400 / 460 3Ø	230	115	VAC
Frequency		50 / 60	50 / 60	60*	Hz
Cooling performance according to EN 14511		7000 - 8500			Btu/h
Power consumption		1400	1425	1680	W
Nominal (Run) Current @ 35A/35A °C		3.0	4.3	7.2	A
Starting current		10	21.8	53	
Unimpeded airflow (free flow)	internal	580 (985)			CFM (m^3/h)
	external	580 (985)			
Fuse (Recommended) Class CC**		5	10	25	A
Type of connection		permanent spring terminal			
Noise level (according to EN ISO 3741)		< 73			dB(A)
Weight (without packaging)		119 (54)			lb (kg)
Ambient temperature range		+ 32 … + 131 / + 0 … + 55			°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35			
Refrigerant	type	R134a			
	quantity	700			g
Duty cycle		100 %			
Condensate management		active condensate evaporation system with safety overflow			
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed			
		NEMA Type 1 towards the surroundings when properly installed			
Design	housing	galvanized sheet steel			
	cover	stainless steel 304			

*50 Hz unit available. Consult factory.
** SCCR rating - See user manual for instructions to achieve 50 kA (230 V) or 200 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
900 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500001	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

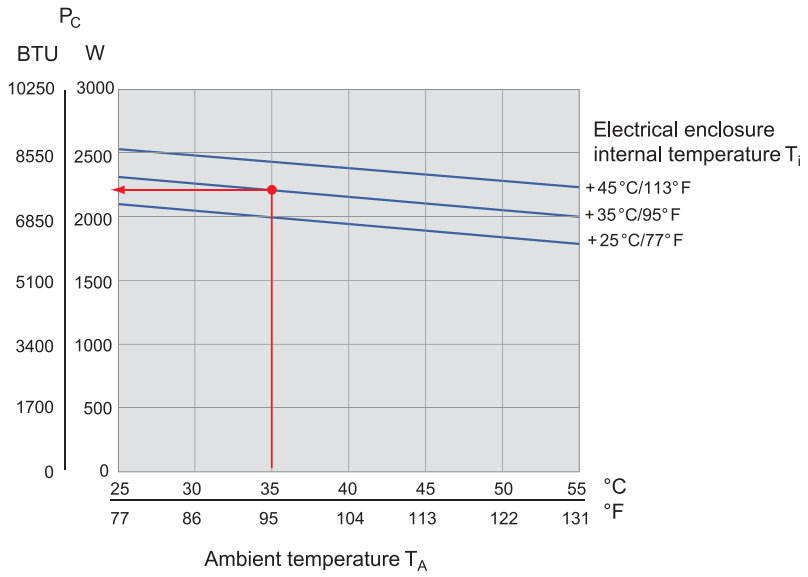
Cooling Capacity Performance Curve

DTS 3281

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 7850 Btu/h cooling capacity (Y-axis)



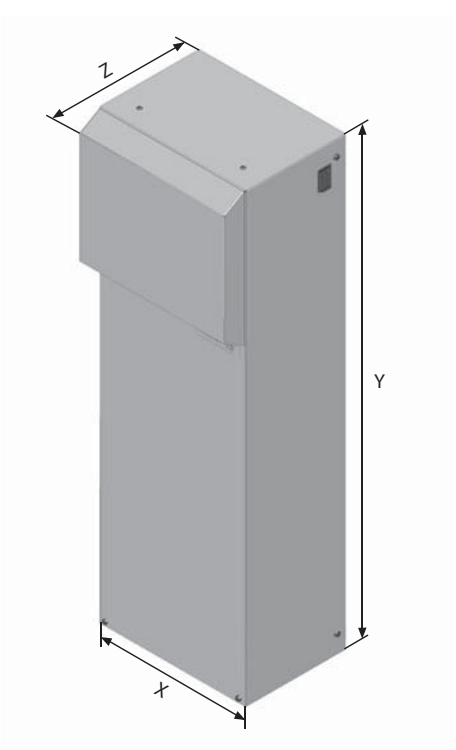
Dimensions

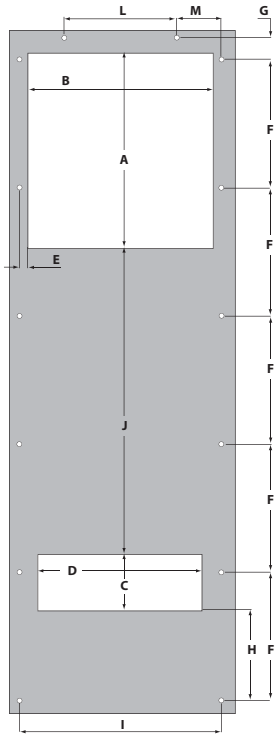
DTS 3281

Dimension	inches (mm)
X	15.55 (395)
Y	47.6 (1209)
Z	12.83 (326)
A	13.78 (350)
B	12.99 (330)
C	3.94 (100)
D	11.5 (292)
E	.59 (15)
F	9 (228.6)
G	1.5 (38.1)
H	6.39 (162.3)
I	14.17 (360)
J	21.46 (545)
K	1.34 (34)
L	7.87 (200)
M	3.15 (80)

Mounting holes Ø 8 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3285 (NEMA 4/4X)

Cooling Unit 9000 - 12000 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- Optional high ambient temperature to 140° F (60° C) (see page 109)
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3285 (NEMA Type 4/4X)			Unit
Part number	304 Stainless Steel	13383836158	13383839158	13383844158	
Rated voltage ± 10 %		400 / 460 3Ø	230	115	VAC
Frequency		50 / 60	50/60	60*	Hz
Cooling performance according to EN 14511		9000 - 12000			Btu/h
Power consumption		1700	1600	1600	W
Nominal (Run) Current @ 35A/35A °C		2.6	6.5	13	A
Starting current		6.3	30	57	
Unimpeded airflow (free flow)	internal	706 (1200)	706 (1200)	765 (1300)	CFM (m^3/h)
	external	706 (1200)	706 (1200)	765 (1300)	
Fuse (Recommended) Class CC**		10	15	30	A
Type of connection		permanent spring terminal			
Noise level (according to EN ISO 3741)		< 73			dB(A)
Weight (without packaging)		150 (68)			lb (kg)
Ambient temperature range		+ 59 … + 131 / + 15 … + 55			°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35			
Refrigerant	type	R134a			
	quantity	1200			g
Duty cycle		100 %			
Condensate management		active condensate evaporation system with safety overflow			
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed			
		NEMA Type 1 towards the surroundings when properly installed			
Design	housing	galvanized sheet steel			
	cover	stainless steel 304			

** SCCR rating - See user manual for instructions to achieve 50 kA (230 V) or 200 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
900 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500007	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

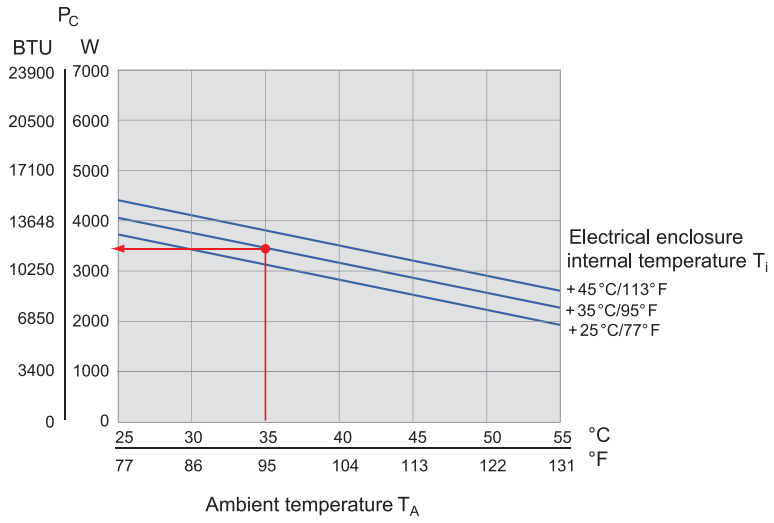
Cooling Capacity Performance Curve

DTS 3285

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 10875 Btu/h cooling capacity (Y-axis)



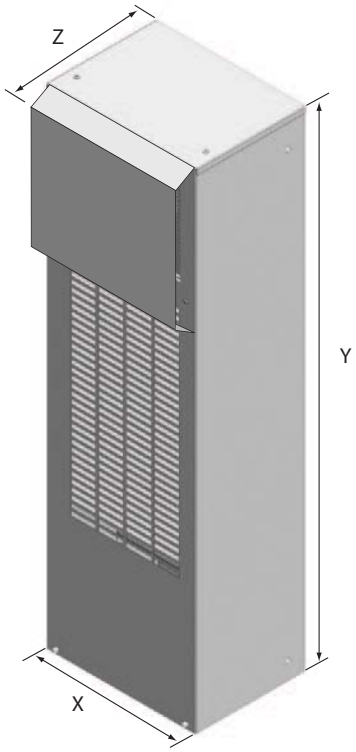
Dimensions

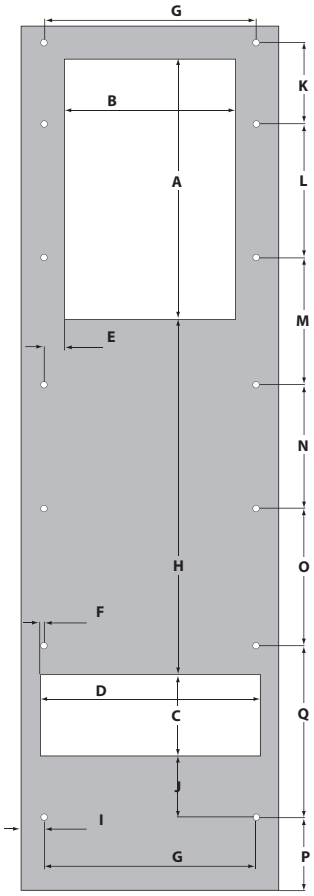
DTS 3285

Dimension	inches (mm)
X	16.0 (406)
Y	53.0 (1347)
Z	14.4 (367)
A	16.8 (427)
B	11 (280)
C	5.3 (135)
D	13.7 (348)
E	.98 (25)
F	.35 (9)
G	13.0 (330)
H	21.1 (537)
I	1.4 (35)
J	3.6 (92)
K	5.0 (126)
L	8.2 (209)
M	7.8 (198)
N	7.6 (192)
O	8.4 (214)
P	4.5 (114)
Q	10.5 (267)

Mounting holes Ø 8 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3381 (NEMA 4/4X)

Cooling Unit 12000 - 14000 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3381 (NEMA Type 4/4X)		Unit
Part number	304 Stainless Steel	13383036158	13383039158	
Rated voltage ± 10 %		400/460 3Ø	230	VAC
		AC 50 / 60	AC 60*	Hz
Cooling performance according to EN 14511		12000 - 14000		Btu/h
Power consumption		1200 / 1600	1872	W
Nominal (Run) Current @ 35A/35A °C		3.0	8.0	A
Starting current		20	51	
Unimpeded airflow (free flow)	internal	788 (1400)		CFM (m^3/h)
	external	991 (1685)		
Fuse (Recommended) Class CC**		15	20	A
Type of connection		permanent screw terminal		
Noise level (according to EN ISO 3741)		< 72		dB(A)
Weight (without packaging)		214 (97)		lb (kg)
Ambient temperature range		+ 32 … + 131 / + 0 … + 55		°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35		
Refrigerant	type	R134a		
	quantity	1000		g
Duty cycle		100 %		
Condensate management		active condensate evaporation system with safety overflow		
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed		
		NEMA Type 1 towards the surroundings when properly installed		
Design	housing	galvanized sheet steel		
	cover	stainless steel 304		

*50 Hz unit available. Consult factory.
** SCCR rating - See user manual for instructions to achieve 50 kA (230 V) or 200 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
1400 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500002	94
Condensate bottle	1	18314000100	94

Approvals see page 11/12

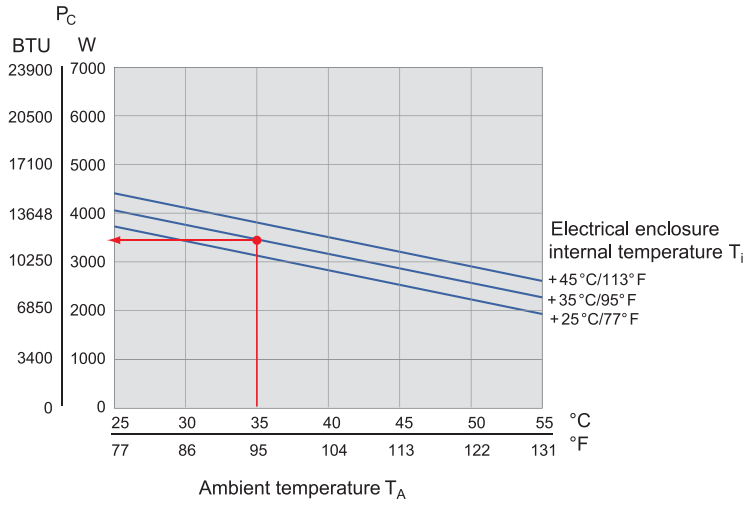
Cooling Capacity Performance Curve

DTS 3381

How to use chart

Example:
@ 95° F (ambient, X-axis), @ 95° F (internal, diagonal lines)

= 11250 Btu/h cooling capacity (Y-axis)



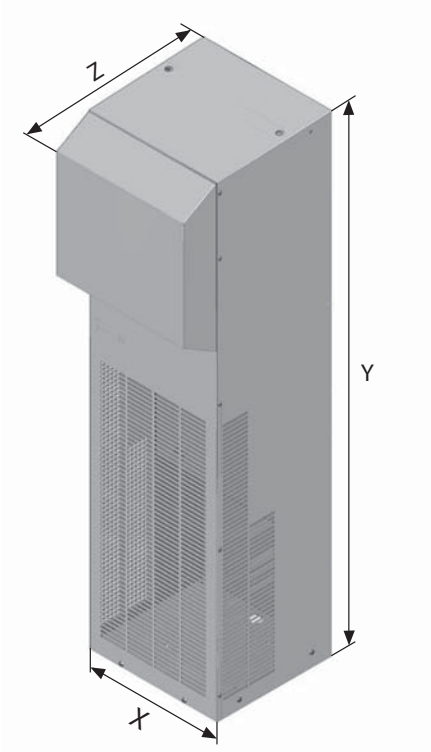
Dimensions

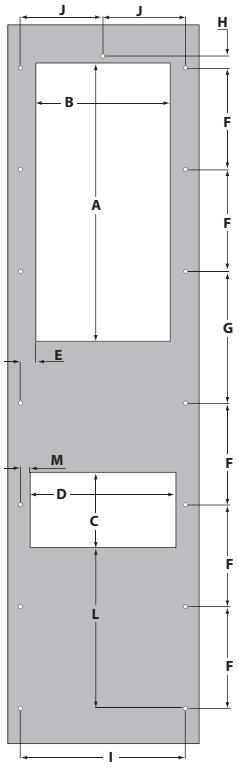
DTS 3381

Dimension	inches (mm)
X	15.87 (403)
Y	59.13 (1502)
Z	18.43 (468)
A	23.23 (590)
B	11.22 (285)
C	6.3 (160)
D	12.2 (310)
E	12.8 (325)
F	8.5 (216)
G	11.02 (280)
H	1.02 (26)
I	13.78 (350)
J	6.89 (175)
K	11.02 (280)
L	13.39 (340)
M	.79 (20)

Mounting holes Ø 8 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3581 (NEMA 4/4X)

Cooling Unit 16000 - 18000 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3581 (NEMA Type 4/4X)		Unit
Part number 304 Stainless Steel		13383536158	13383539158	
Rated voltage ± 10 %		400 / 460 3Ø	230	VAC
Frequency		50 / 60	60*	Hz
Cooling performance according to EN 14511		16000 - 18000		Btu/h
Power consumption		1365 / 1815	2240	W
Nominal (Run) Current @ 35A/35A °C		4.4	9.2	A
Starting current		16	49.3	
Unimpeded airflow (free flow)	internal	788 (1340)		CFM (m^3/h)
	external	1480 (2380)		
Fuse (Recommended) Class CC		15	30	A
Type of connection		permanent screw terminal		
Noise level (according to EN ISO 3741)		< 72		dB(A)
Weight (without packaging)		221 (100)		lb (kg)
Ambient temperature range		+ 32 … + 131 / + 0 … + 55		°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35		
Refrigerant	type	R134a		
	quantity	1200		g
Duty cycle		100 %		
Condensate management		active condensate evaporation system with safety overflow		
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed		
		NEMA Type 1 towards the surroundings when properly installed		
Design	housing	galvanized sheet steel		
	cover	304 stainless steel		

*50 Hz unit available. Consult factory.
** SCCR rating - See user manual for instructions to achieve 50 kA (230 V) or 200 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
1400 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500003	94
Condensate bottle	1	18314000100	94

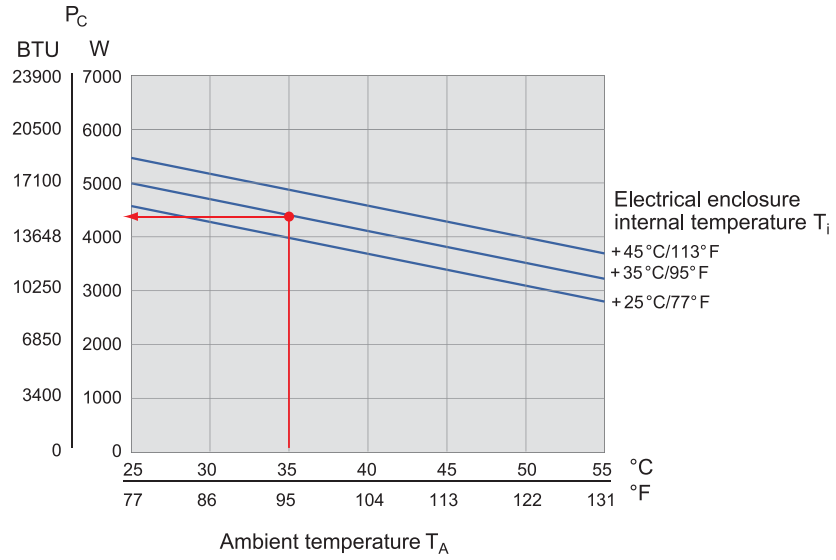
Approvals see page 11/12

Cooling Capacity Performance Curve

DTS 3581

How to use chart

Example:
@ 95° F (ambient, X-axis),
@ 95° F (internal, diagonal lines)
= 15200 Btu/h cooling capacity (Y-axis)



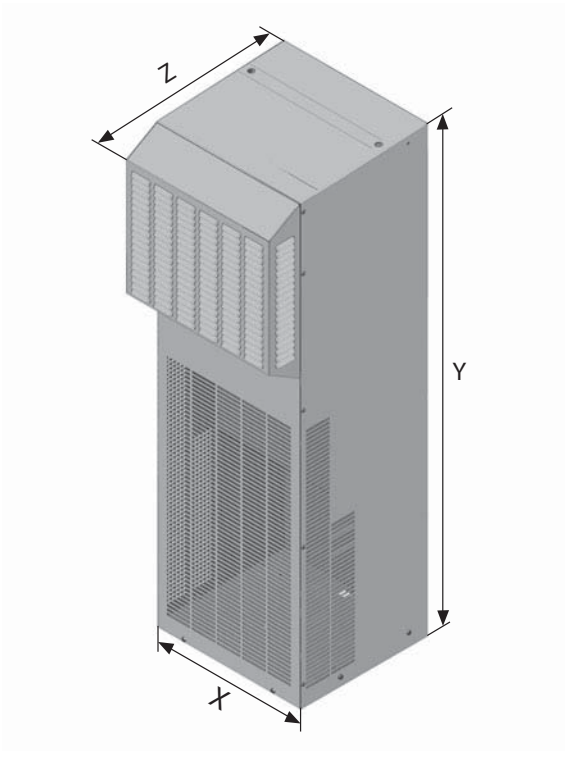
Dimensions

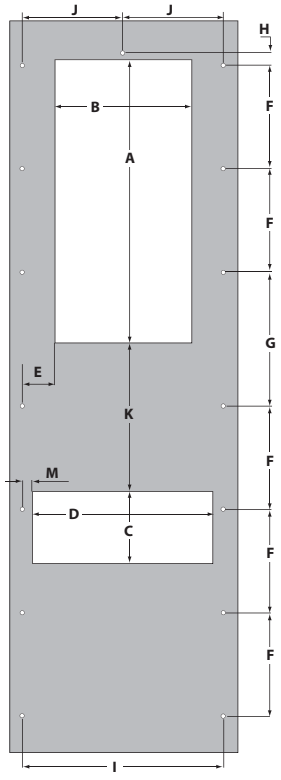
DTS 3581

Dimension	inches (mm)
X	19.02 (483)
Y	59.13 (1502)
Z	21.02 (534)
A	23.23 (590)
B	11.22 (285)
C	5.91 (150)
D	14.96 (380)
E	2.66 (67.5)
F	8.5 (216)
G	11.02 (280)
H	1.02 (26)
I	16.54 (420)
J	8.27 (210)
K	12.2 (310)
L	12.6 (320)
M	.79 (20)

Mounting holes Ø 10 mm

For exact cutout information reference drilling template at pfannenbergusa.com





DTS 3681 (NEMA 4/4X)

Cooling Unit 20000 - 24000 Btu/h

- Large distance between intake and exhaust vents, safe circulation within the electrical enclosure due to long passage of air, therefore hot spots are eliminated
- Maintains a UL Tested NEMA Type 4/4X seal against enclosure
- UL 484 Listed, category ACVS, UL file #SA10300, CE approved for European use
- Maintenance-free design, filterless for most applications
- 304 Stainless steel cover to match enclosures, with # 3 polish
- Condenser with 3 mm fin spacing, highly effective protection against strongly contaminated and aggressive ambient air
- Particularly suitable for food and beverage, wastewater and pump applications
- Utilizes a thermal expansion valve (TXV) to ensure maximum performance over a broad range

Data		DTS 3681 (NEMA Type 4/4X)		Unit
Part number 304 Stainless Steel		13383936158	13383939158	
Rated voltage ± 10 %		400 / 460 3Ø	230	VAC
Frequency		50 / 60	60*	Hz
Cooling performance according to EN 14511		20000 - 24000		W
Power consumption		2000/2620	3142	
Nominal (Run) Current @ 35A/35A °C		4.8	15	A
Starting current		25	84	
Unimpeded airflow (free flow)	internal	1613 (2740)		CFM (m^3/h)
	external	1613 (2740)		
Fuse (Recommended) Class CC**		15	35	A
Type of connection		permanent screw terminal		
Noise level (according to EN ISO 3741)		< 73		dB(A)
Weight (without packaging)		230 (105)		lb (kg)
Ambient temperature range		+ 32 … + 131 / + 0 … + 55		°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35		
Refrigerant	type	R134a		
	quantity	1300		g
Duty cycle		100 %		
Condensate management		active condensate evaporation system with safety overflow		
Protection system according to NEMA type		NEMA Type 4/4X against enclosure when properly installed		
		NEMA Type 1 towards the surroundings when properly installed		
Design	housing	galvanized sheet steel		
	cover	304 stainless steel		

*50 Hz unit available. Consult factory.
** SCCR rating - See user manual for instructions to achieve 50 kA (230 V) or 200 kA (460 V) SCCR rating.

Option(s)	Piece	Part number	Information on page
1400 W Enclosure Heater	1	Consult Factory	-
Accessories	**Piece**	**Part number**	**Information on page**
Metal Mesh Filter	1	18881500004	94
Condensate bottle	1	18314000100	94

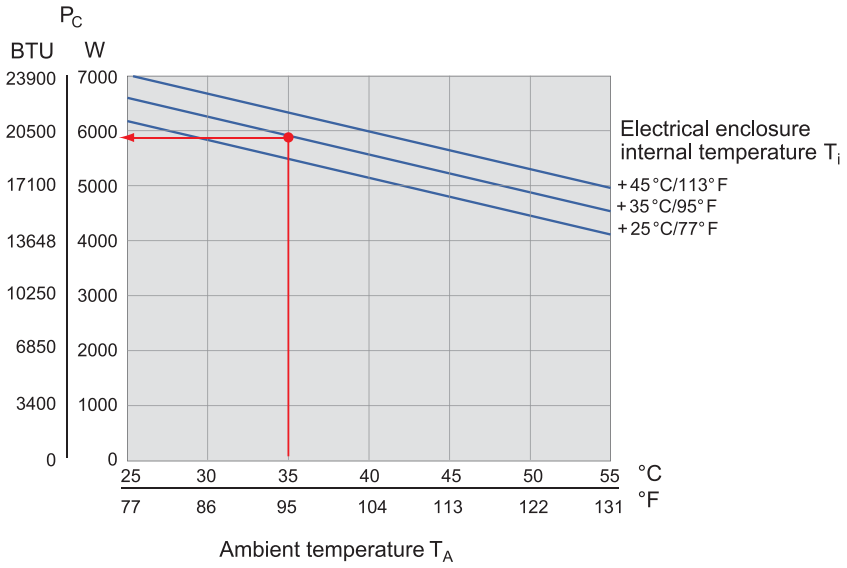
Approvals see page 11/12

Cooling Capacity Performance Curve

DTS 3681

How to use chart

Example:
@ 95° F (ambient, X-axis),
@ 95° F (internal, diagonal lines)
= 20500 Btu/h cooling capacity (Y-axis)



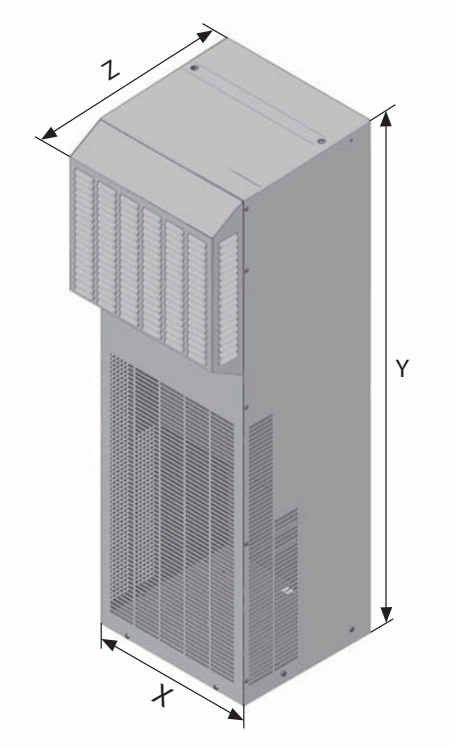
Dimensions

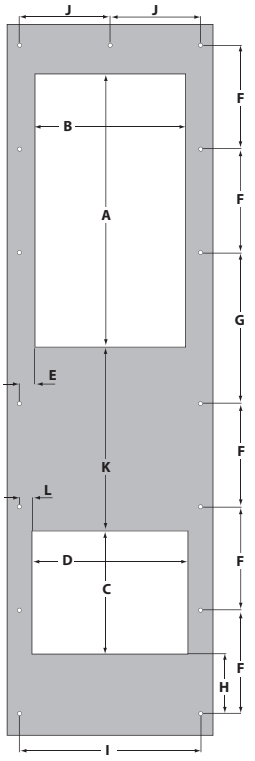
DTS 3681

Dimension	inches (mm)
X	19.02 (483)
Y	65.63 (1667)
Z	24.53 (623)
A	25 (635)
B	13.78 (350)
C	11.22 (285)
D	10.24 (260)
E	1.38 (35)
F	9.45 (240)
G	13.78 (350)
H	5.47 (139)
I	16.54 (420)
J	8.27 (210)
K	16.73 (425)
L	1.12 (28.5)

Mounting holes Ø 10 mm

For exact cutout information reference drilling template at pfannenbergusa.com





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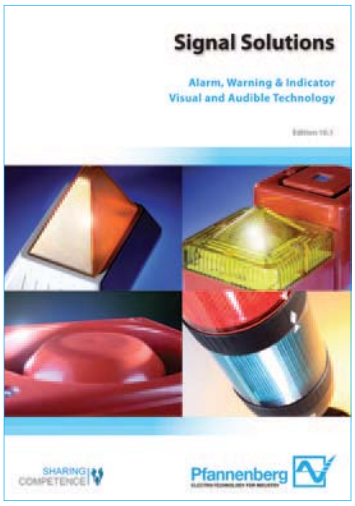
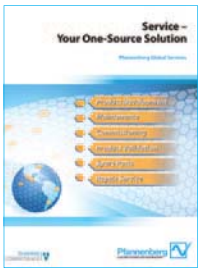
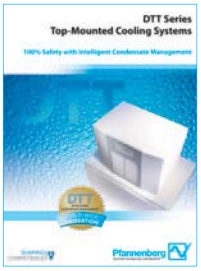


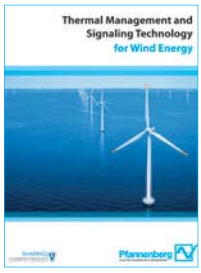
Signal Solutions Guide



Global Service Guide



DTT Series Cooling Units



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